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EXAMINER	
LAMBRECHT, CHRISTOPHER M	
ART UNIT	**PAPER NUMBER**
2611	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/826,198	BESSEL, DAVID H.	
	Examiner	Art Unit	
	Christopher M Lambrecht	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 April 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 9 and 22 are objected to because of the following informalities:

In claim 1, line 5, replace "recorder" with --decoder--.

In claim 9, line 1, insert --video-- between "said" and "decoder".

In claim 11, line 1, insert --video-- between "said" and "decoder".

In claim 22, line 5, replace "recorder" with --decoder--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by US 20040261112A1 of Hicks, III et al. (hereinafter "Hicks").

With regard to claim 1, Hicks discloses a television signal processing and recording system for handling both digital and analog video signals, said system comprising:

a video decoder (A/D 125, fig. 2) in an analog signal path for converting an analog signal to a digital signal (¶0047, ll. 18-24);

an encoder (A/D 125, fig. 2) for compressing said digital signal output by said video decoder (¶0047, ll. 18-24, converting to MPEG-2 format inherently comprises compression); and

a connection (295, fig. 2, or 95, figs. 1 & 3) for routing said compressed digital signal into a digital signal path in which said compressed digital signal is either decompressed with a decoder (325, fig. 3, of set-top box 300) and output to a television set (40, fig. 3, ¶0054, ll. 3-10 and ¶0050, ll. 14-18) or recorded on a digital data storage device (103, fig. 2, ¶0046, ll. 5-12).

As for claim 5, Hicks discloses the system of claim 1, wherein said digital data storage device is a hard disk drive (¶0040).

As for claim 6, Hicks discloses the system of claim 1, further comprising an analog tuner for outputting said analog signal to said video decoder (¶0039, where a tuner that receives an analog signal is inherently an analog tuner).

As for claim 7, Hicks discloses the system of claim 1, wherein said encoder is an MPEG2 encoder (¶0039).

As for claim 8, Hicks discloses the system of claim 1, wherein said decoder is an MPEG2 decoder (where the signal has been compressed according to MPEG2 format, ¶0039, the associated decoder, ¶0055) is inherently an MPEG2 decoder).

As for claim 10, Hicks discloses the system of claim 1, wherein said digital data storage device is incorporated in a personal video recorder (where element 100 of fig. 1/110 of fig. 2 comprises a personal video recorder).

With regard to claim 12, Hicks discloses a method of processing and recording a television signal that handles both digital and analog video signals, said method comprising:

converting an analog signal to a digital signal (¶0039); and

compressing (where converting the signal to MPEG format, ¶0039, inherently comprises compression) and decompressing (¶0055, ll. 14-18) said digital signal before outputting said digital signal to a television set (40, fig. 3, ¶0054, ll. 3-10).

As for claim 13, Hicks discloses the method of claim 12, further comprising, after converting said analog signal to said digital signal and after compressing said digital signal, routing said compressed digital signal from an analog signal path to a digital signal path in which said compressed digital signal is decompressed (325, fig. 3, of set-top box 300) and output to a television set (40, fig. 3, ¶0054, ll. 3-10 and ¶0050, ll. 14-18).

As for claim 15, Hicks discloses the method of claim 13, further comprising tuning a digital signal with a digital tuner and outputting said tuned digital signal into said digital path (¶0041).

As for claim 16, Hicks discloses the method of claim 12, further comprising, after converting said analog signal to said digital signal and after compressing said digital signal ¶0039), recording said compressed digital signal on a digital data recording device (¶0040).

With regard to claim 18, Hicks discloses a system for processing and recording a television signal that handles both digital and analog video signals, said system comprising:

means for converting an analog signal to a digital signal (¶0039);

means for compressing and decompressing said digital signal (¶0039, where converting said signal to MPEG format inherently comprises compression).

As for claim 19, Hicks discloses the system of claim 18, further comprising means for outputting said digital signal to a television set (¶0042, ll. 1-14, ¶0054, ll. 3-10).

As for claim 20, Hicks discloses the system of claim 18, further comprising means for recording said digital signal when said digital signal is compressed (¶0039, ¶0046).

With regard to claim 22, Hicks discloses a television signal processing and recording system for handling both digital and analog video signals, said system comprising:

a video decoder (125, fig. 2) in an analog signal path for converting an analog signal to a digital signal (¶0047, ll. 18-24);

an encoder for compressing said digital signal output by said video decoder (where converting a signal to MPEG, ¶0047, ll. 18-24, inherently comprises compression); and

a decoder (325, fig. 3, of set-top box 300) for decompressing said digital signal compressed by said encoder (¶0055, ll. 14-18).

As for claim 23, Hicks discloses the system of claim 22, further comprising a connection for outputting said digital signal to a television set (40, fig. 3) when said digital signal is decompressed (¶0054, ll. 3-10).

As for claim 24, Hicks discloses the system of claim 22, further comprising a digital data storage device (103, figs. 1 & 2) for recording said digital signal when compressed by said encoder (¶0046, ll. 5-12).

As for claim 25, Hicks discloses the system of claim 22, further comprising a digital tuner (¶0041) for outputting a tuned digital signal to (via 95 of figs. 1 & 3) said decoder (325, fig. 3).

As for claim 26, Hicks discloses the system of claim 22, further comprising an analog tuner for outputting a tuned analog signal to said video decoder (¶0039, where a tuner that receives an analog signal is inherently an analog tuner).

As for claim 27, Hicks discloses the system of claim 22, wherein said digital data storage device is a hard disk drive (¶0040).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks.

With regard to claim 2, Hicks discloses the system of claim 1, but fails to disclose a demultiplexer for demultiplexing said compressed digital signal when said compressed digital signal is routed to said data path.

Examiner takes Official notice of the fact that it is well known in the art to provide a demultiplexer for demultiplexing an MPEG encoded television signal prior to decoding said signal for display, for the purpose of routing MPEG video data to video decoding hardware and MPEG audio to audio decoding hardware, such that the MPEG stream may be more efficiently decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hicks to include a demultiplexer for demultiplexing said compressed digital signal when said compressed digital signal is routed to said data path, for the purpose of enabling efficient A/V decompression.

As for claim 3, Hicks discloses the system of claim 2 as set forth above, further comprising a digital tuner for outputting a tuned digital signal into said digital signal path (¶0041).

As for claim 4, Hicks discloses the system of claim 3, as set forth above, but fails to disclose said digital tuner outputs said digital signal to said multiplexer.

Examiner takes Official notice of the fact that it is well known in the art for digital broadcasts (received by said digital tuner) to employ MPEG compression, and that it is well known in the art to provide a demultiplexer for demultiplexing an MPEG encoded television signal prior to decoding said signal for display, for the purpose of routing MPEG video data to video decoding hardware and MPEG audio to audio decoding hardware, such that the MPEG stream may be more efficiently decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hicks such that said digital tuner outputs said digital signal to said multiplexer, for the purpose of enabling efficient A/V decompression.

With regard to claim 14, Hicks discloses the method of claim 13, wherein said compressed digital signal (MPEG encoded) is routed to said digital signal path, but fails to disclose demultiplexing said compressed digital signal.

Examiner takes Official notice of the fact that it is well known in the art to demultiplex an MPEG encoded television signal, for the purpose of routing MPEG video data to video decoding hardware and MPEG audio to audio decoding hardware, such that the MPEG stream may be more efficiently decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hicks to demultiplex said compressed digital signal when said compressed digital signal is routed to said data path, for the purpose of enabling efficient A/V decompression.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks in view of US006483986B1 to Krapf (hereinafter "Krapf").

With regard to claim 9, Hicks discloses the system of claim 1, wherein said video encoder (125, fig. 2), encoder (125, fig. 2), and connection (coupling of signal path from A/D 125 and signal line 145, fig. 2) are incorporated in a personal video recorder (where element 100 of fig. 1/110 of fig. 2 comprises a personal video recorder) and said decoder (325, fig. 3) is incorporated in a set-top box (300, ¶0055), but fails to disclose said video decoder, encoder and connection are incorporated in a set-top box.

Krapf discloses integrating the components of a personal video recorder (2, fig. 1) and a set-top box (24, fig. 1) as a single unit (col. 6, ll. 28-32), for the purpose of enabling the recorder to internally tune to a selected one of a plurality of channels (col. 6, ll. 31-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hicks such that said video decoder, encoder and connection are

incorporated in a set-top box, as taught by Krapf, for the purpose of enabling the recorder to internally tune to a selected one of a plurality of channels.

With regard to claim 11, Hicks discloses the system of claim 1, wherein said video decoder (125, fig. 2), encoder (125, fig. 2), connection (coupling of signal path from A/D 125 and signal line 145, fig. 2) and digital data storage device (103, fig. 2) are incorporated in a personal video recorder (where element 100 of fig. 1/110 of fig. 2 comprises a personal video recorder) and said decoder is incorporated in a set-top box (300, ¶0055), but fails to disclose said video decoder, encoder, connection and digital data storage device are incorporated in a single set-top unit.

Krapf discloses integrating the components of a personal video recorder (2, fig. 1) and a set-top box (24, fig. 1) as a single unit (col. 6, ll. 28-32), for the purpose of enabling the recorder to internally tune to a selected one of a plurality of channels (col. 6, ll. 31-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hicks such that said video decoder, encoder, connection and digital data storage device are incorporated in a set-top box, as taught by Krapf, for the purpose of enabling the recorder to internally tune to a selected one of a plurality of channels.

7. Claims 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks as applied to claims 16 and 20 above, and further in view of U.S. Patent No. 6,788,882 to Greer et al. (hereinafter "Greer").

With regard to claim 17, Hicks discloses the method of claim 16, wherein said recording is performed by a personal video recorder (where element 100 of fig. 1/110 of fig. 2 comprises a personal video recorder), but fails to disclose converting and compressing said digital signal are performed with a set-top box.

In an analogous art, Greer discloses converting and compressing said digital signal are performed with a set-top box (e.g. 250a, fig. 2, col. 7, ll. 26-29, where set-top boxes correspond to set-top box cards, performing A/D conversion and compression, col. 7, ll. 9-15), enabling an external set-top box to be coupled to a recorder for digital video recording (col. 7, ll. 30-33).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Hicks to include converting and compressing said digital signal are performed with a set-top box, as taught by Greer, for the purpose of enabling an external set-top box to be coupled to a recorder for digital video recording.

Conclusion

8. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M Lambrecht whose telephone number is (571) 727-7297. The examiner can normally be reached from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher M Lambrecht
Examiner
Art Unit 2611

CML

CHRIS GRANT
PRIMARY EXAMINER